

Title (en)  
DIRECTIONAL ACOUSTIC DEVICE

Title (de)  
DIREKTIONALE AKUSTISCHE VORRICHTUNG

Title (fr)  
DISPOSITIF ACOUSTIQUE DIRECTIONNEL

Publication  
**EP 3510790 A1 20190717 (EN)**

Application  
**EP 16767500 A 20160912**

Priority  
US 2016051271 W 20160912

Abstract (en)  
[origin: WO2018048438A1] A directional acoustic device with an acoustic source or an acoustic receiver and a conduit to which the acoustic source or acoustic receiver is acoustically coupled and within which acoustic energy travels in a propagation direction from the acoustic source or to the acoustic receiver. The conduit has a radiating portion that has a radiating surface with leak openings that define controlled leaks through which acoustic energy radiated from the source into the conduit can leak to the outside environment or through which acoustic energy in the outside environment can leak into the conduit. The radiating surface has a thin sheet with openings through the sheet, and a cover material with a greater acoustic resistance than an acoustic resistance of an opening. The cover material covers at least parts of at least some of the openings, to define controlled acoustic leaks into or out of the conduit.

IPC 8 full level  
**H04R 1/34** (2006.01)

CPC (source: EP)  
**H04R 1/342** (2013.01); **H04R 1/345** (2013.01); **H04R 1/28** (2013.01)

Citation (search report)  
See references of WO 2018048438A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**WO 2018048438 A1 20180315**; CN 109863759 A 20190607; CN 109863759 B 20210611; EP 3510790 A1 20190717; EP 3510790 B1 20211110; JP 2019526998 A 20190919; JP 6878576 B2 20210526

DOCDB simple family (application)  
**US 2016051271 W 20160912**; CN 201680090407 A 20160912; EP 16767500 A 20160912; JP 2019513980 A 20160912